



**PATENT APPLICATION**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Hideyasu KARASAWA

Confirmation No.: 6948

Application No.: 10/086,630

Attorney Dkt. No.: 103203-00006

Filed: March 4, 2002

Group Art Unit: 2627

For: IMAGE PROCESSING METHOD, PROGRAM OF THE SAME, AND IMAGE  
PROCESSING APPARATUS FOR SEARCHING IMAGES AND PRODUCING  
REALISTIC IMAGES

**REQUEST FOR CORRECTED NOTICE OF ALLOWANCE**

Mail Stop Issue Fee  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

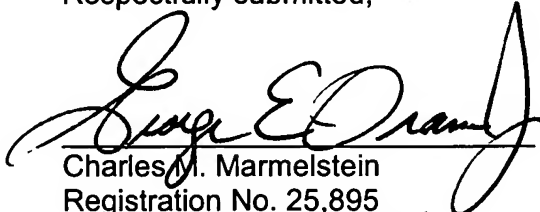
Date: January 6, 2006

Sir:

A corrected Notice of Allowance is hereby requested in view of the errors that appear in the original notice of allowance. In reviewing the Notice of Allowance, an error was noted in the title of the invention. In the support of this request, enclosed is a copy of the amendment dated July 6, 2005, along with a copy of the Notice of Allowance with the corrections noted thereon. It is respectfully submitted that the request is proper.

Please charge any deficiency or credit any overpayment with respect to this paper to Deposit Account No. 01-2300.

Respectfully submitted,



Charles M. Marmelstein  
Registration No. 25,895

27931

Customer Number: 004372  
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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
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NOTICE OF ALLOWANCE AND FEE(S) DUE

004372 7590 11/18/2005

ARENT FOX PLLC  
1050 CONNECTICUT AVENUE, N.W.  
SUITE 400  
WASHINGTON, DC 20036

EXAMINER

KRONENTHAL, CRAIG W

ART UNIT

PAPER NUMBER

2627

DATE MAILED: 11/18/2005

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/086,630	03/04/2002	Hideyasu Karasawa	103203-00006	6948	
TITLE OF INVENTION: IMAGE PROCESSING METHOD, PROGRAM OF THE SAME, AND IMAGE PROCESSING APPARATUS <i>For Searching</i> <i>Images and Producing Realistic Images</i>					
APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$700	\$300	\$1000	02/21/2006

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER:** Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.



ZW  
DAC

# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,630	03/04/2002	Hideyasu Karasawa	103203-00006	6948
004372	7590	11/18/2005		
ARENT FOX PLLC 1050 CONNECTICUT AVENUE, N.W. SUITE 400 WASHINGTON, DC 20036				
EXAMINER KRONENTHAL, CRAIG W				
ART UNIT		PAPER NUMBER		
2627				

DATE MAILED: 11/18/2005

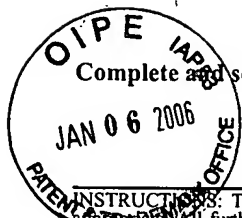
## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 715 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 715 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571) 272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.



## PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: MailMail Stop ISSUE FEE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

004372 7590 11/18/2005

ARENT FOX PLLC  
1050 CONNECTICUT AVENUE, N.W.  
SUITE 400  
WASHINGTON, DC 20036

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

## Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,630	03/04/2002	Hideyasu Karasawa	103203-00006	6948

TITLE OF INVENTION: IMAGE PROCESSING METHOD, PROGRAM OF THE SAME, AND IMAGE PROCESSING APPARATUS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$700	\$300	\$1000	02/21/2006

EXAMINER	ART UNIT	CLASS-SUBCLASS
KRONENTHAL, CRAIG W	2627	382-284000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1	_____
2	_____
3	_____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are enclosed:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s):

- ☐ A check in the amount of the fee(s) is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.
- ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

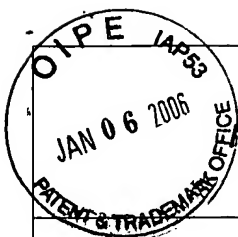
Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



## Notice of Allowability

Application No.

10/086,630

Examiner

Craig W. Kronenthal

Applicant(s)

KARASAWA, HIDEYASU

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 07/06/2005.
2. ☒ The allowed claim(s) is/are 1, 3-17, and 20.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_



Application/Control Number: 10/086,630  
Art Unit: 2627

Page 2

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Rusty Hill on November 8, 2005.

The application has been amended as follows:

Claim 3 now reads as follows: An image processing method as set forth in claim 1, further comprising the steps of inputting image data of a target element, analyzing the input image data, and generating said element module data by using said main module data, said sub material module data, processing apparatus module data and said processing routine module data selected based on results of the analysis. *material*

### Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

Independent claims 1, 16, and 17 are allowable over the prior art of record. Claims 3-15 depend from claim 1, and therefore, are allowed. Claim 20 depends from claim 17, and therefore, is allowed.

Independent claims 1, 16, and 17 recite the limitation: generating element module data indicating an attribute of said element using said main material module data, said sub material module data, said processing apparatus module data and said processing

Art Unit: 2627

routine module data. The combination of these features as cited in the claims in combination with the other limitations of the claims, are neither disclosed nor suggested by prior art of record.

The closest reference of USPN 5,815,645 to Fredlund et al. discloses incorporating design attributes of surrounding items into generating a merged image. However, Fredlund does not teach the limitation as cited above.

In view of the amended claims and the Applicant's arguments, the rejection and objections to claims 1, 3-17, and 20 are expressly withdrawn.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

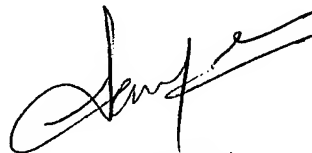
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig W. Kronenthal whose telephone number is (571) 272-7422. The examiner can normally be reached on 8:00 am - 5:00 pm / Mon. - Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

11/09/05  
CWK



SANJIV SHAH  
PRIMARY EXAMINER





PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Hideyasu Karasawa

Group Art Unit: 2623

Serial No.: 10/086,630

Examiner: Craig W. Kronenthal

Filed: March 4, 2002

Docket No.: 103203-00006

For: IMAGE PROCESSING METHOD, PROGRAM OF THE SAME,  
AND IMAGE PROCESSING APPARATUS

**AMENDMENT UNDER 37 C.F.R. § 1.121**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Dated: July 6, 2005

**Introductory Comments**

Sir:

In response to the Office Action mailed April 6, 2005, please amend the above-identified application as set forth below.

Amendments to the Specification begin on Page 2.

Amendments to the Claims begin on Page 3.

Remarks begin on Page 12.

I hereby certify that this correspondence is being deposited in the U.S. Patent and Trademark Office via facsimile transmittal to (703) 872-9306 on this date.

July 6, 2005  
Date

Marylee Jenkins

**AMENDMENTS TO THE SPECIFICATION**

Please replace the title of the invention with the following:

-- IMAGE PROCESSING METHOD, PROGRAM OF THE SAME, AND IMAGE  
PROCESSING APPARATUS FOR SEARCHING IMAGES AND PRODUCING REALISTIC  
IMAGES --.

## **AMENDMENTS TO THE CLAIMS**

1. (Currently Amended) An image processing method for image processing by using information indicating characteristics of all or part of a consumer item and a routine thereof, comprising the steps of

generating main material module data indicating an attribute of a material to be used as a main material at the time of producing an element, said main material is a material mounted on a space criterion apparatus at the time of producing an element by using a processing apparatus and forms the basis for determining the spatial position of a sub material;

generating sub material module data indicating attributes of a material subjected to processing by using the main material as a base;

generating processing apparatus module data indicating attributes of a processing apparatus to be used at the time of generating an element by using the main material module and sub material module, the attributes of the processing apparatus include attributes of a space criterion apparatus for fixing the main material in the processing apparatus in a space for assembly and processing;

generating processing routine module data indicating a procedure of processing by the processing apparatus by using the main material and the sub material;

generating element module data indicating an attribute of said element using said main material module data, said sub material module data, said processing apparatus module data and said processing routine module data;

~~generating element generating processing module data indicating an attribute of processing for generating an element serving as a component of a first artifact, that is, said consumer item, by using said material;~~

~~generating element module data indicating an attribute of said element using said material module data and said element generating processing module data;~~

generating first artifact module data indicating an attribute of said a first artifact using said element module data;

generating second artifact module data indicating an attribute of a second artifact to be linked with said first artifact;

storing said first artifact module data and said second artifact module data in a searchable form; and

generating image data of a scene connecting said first artifact and said second artifact by using said stored first artifact module data and said second artifact module data.

2. (Canceled).

3. (Currently Amended) An image processing method as set forth in claim [2] 1, further comprising the steps of inputting image data of a target element, analyzing the input image data, and generating said element module data by using said material module data and ~~said~~ <sup>fix</sup> element generating processing module data selected based on results of the analysis.

4. (Currently Amended) An image processing method as set forth in claim [2] 1, further comprising the steps of

generating material shape module data obtained by gathering information relating to a shape of said material, material color module data obtained by gathering information regarding a color of said material, material texture module data obtained by gathering information regarding a texture of said material, and material combination module data obtained by gathering information indicating a combined pattern of the shape, color, and design of said material and

generating said element module data by combining information gathered with at least one of said material shape module data, said material color module data, and said material pattern module data based on a combined pattern indicated by said material combination module data.

5. (Original) An image processing method as set forth in claim 4, further comprising the steps of inputting image data of a target element, analyzing the input image data, and generating said element module data by using said material combination module data, said material shape module data, said material color module data, and said material pattern module data selected based on results of the analysis.

6. (Currently Amended) An image processing method as set forth in claim [2] 1, further comprising the steps of

generating first artifact generating processing module data indicating an attribute of processing performed by using said element so as to obtain said first artifact and

generating said first artifact module data by using said element module data and said first artifact generating processing module data.

7. (Original) An image processing method as set forth in claim 6, further comprising the steps of inputting image data of a target first artifact, analyzing the input image data, and generating said first artifact module data by using said element module data and said first artifact generating processing module data based on results of the analysis.

8. (Currently Amended) An image processing method as set forth in claim [2] 1, further comprising the steps of

generating second artifact part module data indicating an attribute of a part of said second artifact;

generating second artifact generating processing module data indicating an attribute of processing for obtaining said second artifact by combining a plurality of said parts; and

generating said second artifact module data by using said second artifact part module data and said second artifact generating processing module data.

9. (Original) An image processing method as set forth in claim 8, wherein said second artifact part module data includes information indicating a relationship with another second artifact part and said first artifact.

10. (Currently Amended) An image processing method as set forth in claim [2] 1, further comprising the steps of inputting image data of a target scene, analyzing the input image data,

and generating said image data by using said first artifact module data and said second artifact module data selected based on results of the analysis.

11. (Currently Amended) An image processing method as set forth in claim [2] 1, further comprising the steps of generating at least one ~~at least one~~ of said element module data, said first artifact module data, said second artifact module data, and said scene based on information on an environment wherein said first artifact or said second artifact is used or an environment to which said scene is applied.

12. (Currently Amended) An image processing method as set forth in claim [2] 1, further comprising the step of generating image data of said scene based on information regarding at least one of a background, visual point, and light source of said scene.

13. (Currently Amended) An image processing method as set forth in claim [2] 1, further comprising managing at least one of said module data by defining it using an object oriented object or file, classifying it in accordance ~~with its~~ with its attributes, and adding a tag in accordance with the classification.

14. (Currently Amended) An image processing method as set forth in claim [2] 1, wherein said module data indicates said attributes by using at least one of an image, sound, and text.

15. (Currently Amended) An image processing method as set forth in claim [2] 1, wherein said module data is a hyper data having a hyperlink function for referring to another entity.

16. (Currently Amended) A computer program indicating a routine of image processing using information indicating characteristics of all or a part of a consumer item or its routine and executed by a computer, the computer program embodied in a computer readable medium for performing the steps of comprising:

a routine for generating element module data indicating an attribute of an element serving as a component of a first artifact, that is, said consumer item;

a routine for generating main material module data indicating an attribute of a material to be used as a main material at the time of producing an element, said main material is a material mounted on a space criterion apparatus at the time of producing an element by using a processing apparatus and forms the basis for determining the spatial position of a sub material;

a routine for generating sub material module data indicating attributes of a material subjected to processing by using the main material as a base;

a routine for generating processing apparatus module data indicating attributes of a processing apparatus to be used at the time of generating an element by using the main material module and sub material module, the attributes of the processing apparatus include attributes of a space criterion apparatus for fixing the main material in the processing apparatus in a space for assembly and processing;

a routine for generating processing routine module data indicating a procedure of processing by the processing apparatus by using the main material and the sub material;



a routine for generating element module data indicating an attribute of said element using said main material module data, said sub material module data, said processing apparatus module data and said processing routine module data;

a routine for generating first artifact module data indicating an attribute of ~~said a~~ first artifact by using said element module data;

a routine for generating second artifact module data indicating an attribute of a second artifact to be linked with said first artifact;

a routine for storing said first artifact module data and said second artifact module data in a searchable form; and

a routine for generating image data of a scene connecting ~~wherein~~ said first artifact and said second artifact ~~are linked~~ by using said first artifact module data and said second artifact module data.

17. (Currently Amended) An image processing apparatus for image processing using information indicating characteristics of all or part of a consumer item or its routine, said apparatus

~~generating element module data indicating an attribute of an element serving as a component of a first artifact, that is, said consumer item;~~

generating main material module data indicating an attribute of a material to be used as a main material at the time of producing an element, said main material is a material mounted on a space criterion apparatus at the time of producing an element by using a processing apparatus and forms the basis for determining the spatial position of a sub material;

generating sub material module data indicating attributes of a material subjected to processing by using the main material as a base;

generating processing apparatus module data indicating attributes of a processing apparatus to be used at the time of generating an element by using the main material module and sub material module, the attributes of the processing apparatus include attributes of a space criterion apparatus for fixing the main material in the processing apparatus in a space for assembly and processing;

generating processing routine module data indicating a procedure of processing by the processing apparatus by using the main material and the sub material;

generating element module data indicating an attribute of said element using said main material module data, said sub material module data, said processing apparatus module data and said processing routine module data;

generating first artifact module data indicating an attribute of said a first artifact by using said element module data;

generating second artifact module data indicating an attribute of a second artifact to be linked with said first artifact;

storing said first artifact module data and said second artifact module data in a searchable form; and

generating image data of a scene wherein said first artifact and said second artifact are linked by using said first artifact module data and said second artifact module data.

18. (Canceled).

19. (Canceled).

20. (Original) An image processing apparatus as set forth in claim 17, said apparatus further

generating material shape module data obtained by gathering information relating to a shape of said material, material color module data obtained by gathering information regarding a color of said material, material texture module data obtained by gathering information regarding a texture of said material, and material combination module data obtained by gathering information indicating a combined pattern of the shape, color, and design of said material and

generating said element module data by combining information gathered with at least one of said material shape module data, said material color module data, and said material pattern module data based on a combined pattern indicated by said material combination module data.

### REMARKS

The Office Action mailed April 6, 2005 has been received and carefully noted. The following remarks are submitted as a full and complete response thereto.

No extension of time is believed to be required based upon the filing of this Amendment prior to the deadline of the three-month statutory period (i.e., July 6, 2005). Authorization is granted to charge counsel's Deposit Account No. 01-2300, referencing **Attorney Docket No. 103203-00006**, for any additional fees necessary for entry of this Amendment.

Claims 1, 3-4, 6, 8 and 10-17 have been amended and claims 2, 18 and 19 have been canceled. Applicants submit that the amendments made herein are fully supported in the Specification and the drawings, as originally filed, and therefore no new matter has been introduced. Accordingly, claims 1, 3-17 and 20 are pending in the present application and are respectfully submitted for reconsideration.

The title of the invention stands objected to for an informality. The title has been amended in response to the Examiner's objection, and it is submitted that the title, as amended, complies with 37 C.F.R. § 1.72(a). The objection is respectfully traversed and reconsideration is requested.

Claims 11 and 16 stand objected to because of informalities. The claims have been amended in response to the Examiner's objection, and it is submitted that the claims, as amended, are in proper condition for examination. The objections are respectfully traversed and reconsideration is requested.

Claims 3-5 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claims 3-5 depend from independent claim 1. Claim 1 has been amended in response to the

Examiner's rejection, and it is submitted that there is sufficient antecedent basis for the limitations in dependent claims 3-5. The rejections are respectfully traversed and reconsideration is requested.

Claims 1-3, 6-7, 10, 14 and 16-19 stand rejected under 35 U.S.C. § 102(b) as being anticipated by the Fredlund et al., patent (U.S. Patent No. 5,815,645). In addition, dependent claims 8-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Fredlund et al. patent. Dependent claims 2-15 and 18-20 depend from independent claims 1 and 17, respectively. Claims 1, 3-4, 6, 8 and 10-17 have been amended and claims 2, 18 and 19 have been canceled. The rejections are respectfully traversed and reconsideration is requested.

Independent claim 1, as amended, recites an image processing method for image processing by using information indicating characteristics of all or part of a consumer item and a routine thereof, comprising the steps of generating main material module data indicating an attribute of a material to be used as a main material at the time of producing an element, the main material is a material mounted on a space criterion apparatus at the time of producing an element by using a processing apparatus and forms the basis for determining the spatial position of a sub material; generating sub material module data indicating attributes of a material subjected to processing by using the main material as a base; generating processing apparatus module data indicating attributes of a processing apparatus to be used at the time of generating an element by using the main material module and sub material module, the attributes of the processing apparatus include attributes of a space criterion apparatus for fixing the main material in the processing apparatus in a space for assembly and processing; generating processing routine module data indicating a procedure of processing by the processing apparatus by using the main material and the sub material; generating element module data indicating an attribute of the

element using the main material module data, the sub material module data, the processing apparatus module data and the processing routine module data; generating first artifact module data indicating an attribute of a first artifact using the element module data; generating second artifact module data indicating an attribute of a second artifact to be linked with the first artifact; storing the first artifact module data and the second artifact module data in a searchable form; and generating image data of a scene connecting the first artifact and the second artifact by using the stored first artifact module data and the second artifact module data. Independent claims 16 and 17, as amended, recite a computer program and image processing apparatus of the same, respectively.

It is respectfully submitted that the Fredlund et al. patent does not disclose or suggest the image processing method, apparatus and computer program of the present invention. Rather, the Fredlund et al. patent merely discloses a method of combining at least one customer generated digital image to form a merged image and/or text with at least one prestored digital image. A design characteristic is determined from an item to be associated with the merged image. The customer generated digital image or the prestored digital image is modified in accordance with the design characteristic so as to form a first modified digital image that is then combined with the other of the customer generated digital image or the prestored digital image so as to form a newly merged digital image. Such does not disclose or suggest the image processing method, apparatus and computer program of the present invention, comprising in part, generating main material module data, generating sub material module data, generating processing apparatus module data and generating processing routine module data, as claimed.

Based upon the forgoing, Applicants respectfully submit that each and every element recited within independent claims 1, 16 and 17 is neither disclosed nor suggested by the Fredlund

et al. patent, and therefore patentable and in condition for allowance. Reconsideration is requested.

Dependent claims 4-5 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Fredlund et al. patent in view of the Yamada patent (U.S. Patent No. 5,960,726). Dependent claims 4-5 and 20 depend from independent claims 1 and 17, respectively. The rejections are respectfully traversed and reconsideration is requested.

With reference to the above arguments concerning the independent claims, it is submitted that the Fredlund et al. patent and the Yamada patent, either alone or in the alleged combinations suggested by the Examiner in the Office Action, do not disclose or suggest the content of dependent claims 4-5 and 20. As noted above, the Fredlund et al. patent fails to disclose or suggest the image processing method and apparatus as claimed in the present invention. Nor does the Yamada patent, directed to an embroidery data processor for processing embroidery stitch data for forming embroidery stitches based on optional images, disclose or suggest the present invention as claimed. Rather, the Yamada patent merely discloses an embroidery data processing device for processing embroidery stitch data for forming embroidery stitches based on a desired pattern image, the embroidery data processor comprising image input means for inputting an image desired to be sewn as an embroidery; texture calculation means for determining a texture characteristic of the inputted image; and stitch format setting means for setting a stitch format, in which stitches are to be formed to reproduce the input image, based on the determined texture characteristic. Such does not disclose or suggest the image processing method and apparatus as claimed in the present invention. Moreover, there is no suggestion to combine the references, as suggested by the Examiner in the Office Action. It is therefore

submitted that dependent claims 4-5 and 20 are also patentable and in condition for allowance.

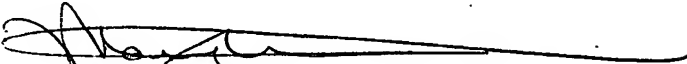
Reconsideration is requested.

It is further submitted that dependent claims 3-15 and 20 are also patentable and in condition for allowance due to their dependency upon independent claims 1 and 17, respectively, since the dependent claims differ in scope from the parent claims. Dependent claims 3-15 depend from independent claim 1 and dependent claim 20 depends from independent claim 17, and thus are further limited to additional features of the invention. Therefore, it is respectfully submitted that the dependent claims are patentable over the Fredlund et al. patent for at least the reasons set forth above with respect to independent claims 1 and 17, and further for the reasons as set forth above with respect to dependent claims 4-5, 8-9 and 20. Reconsideration is requested.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact the Applicant's undersigned counsel at the telephone number, indicated below, to arrange for an interview to expedite the disposition of this application.

Dated: July 6, 2005

Respectfully submitted,

  
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